

Claims

1. Driving gear used to transmit power for tools, in particular, a toothed wheel, made from a non-thermally hardened steel with ferritic or perlitic structure and a base hardness of the uncoated surface of at least 25 HRC and with a hard surface coating of a thickness of less than 10 μ m.
2. Driving gear according to claim 1, comprising embedded manganese sulphides with 0.4 to 0.5 mass % carbon, 1.13 to 1.70 mass % manganese, 0.2 to 0.35 mass % sulphur, and optional silicon and phosphor.
3. Driving gear according to claim 1 or 2, characterized in that the surface coating is WCH or DLC or W-DLC or CrN or combinations thereof.
4. Driving gear according to claim 1, 2 or 3, characterized in that the surface coating has a thickness of 2 to 10 μ m, in particular of 3 to 7 μ m.
5. Driving gear according to any one of the preceding claims, characterized in that its uncoated surface has a Rockwell hardness of 25 to 35 HRC, in particular of 26 to 35 HRC, in particular of 27 to 35 HRC, and preferentially 27 to 30 HRC.
6. Driving gear according to any one of the preceding claims, characterized in that its coated surface has a micro hardness HV 0.03 of at least HV 1200, in particular, at least HV 1250.